

Age Guessing

Concepts

- Algebra
- Scatter plots

Materials

- TI-84 Plus
- Paper
- Pencils

Overview

In this activity, the instructor will pick favorite “famous” people and ask the participants to guess their ages. The names and birth dates are attached (“Famous Persons Birth Dates”). Participants use the calculator to enter the information and to view results.

- Have the participants enter the data editor, and clear all default lists.
 - See Figures 1 and 2.

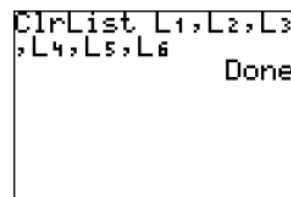


Figure 1

L1	L2	L3	1
████████	-----	-----	
L1(1)=			

Figure 2

L1	L2	L3	2
56 48 81 42 32 23 24	████████	-----	
L2(1)=			

Figure 3

L1	L2	L3	3
56 48 81 42 32 23 24	50 52 32 42 40 19 27	████████	
L3(1)=			

Figure 4

- Use the attached list of names and birth dates as a guide.
 - Pick between 10 – 15 names that range in age.
 - As you announce the names, students guess their ages in L1 (Figure 3).
- Now, read the correct ages (from their birthdates) and have them enter the information into L2 (Figure 4).

4. Have the participants create a scatter plot with the X-list (L1) and Y-list (L2).

- See Figure 5.

5. Make sure the Y= are clear, and use ZoomStat to show the relationship.

- Have them press **TRACE**, and discuss the ordered pair (Figure 6).

- In this case, $x = 56$ (guess) and $y = 50$ (actual age) as shown in Figure 7.

6. Graph $y = x$, show graph, and plot together (Figure 8).

- Discuss what the relationship is between the plot and line (Figure 9).
- In the case showing, all points below the line (actually to the right), the guess was too high, those on the line were correct guesses and the points above (to the left) were too low.

7. Have them talk for 5 minutes in small groups how to determine the winner (participant who was the best guesser).

- Some examples: The winner could be the participant with the least error sum, the one with the most 0 errors, or the one with the lowest median error.
- Any other suggestions?



Figure 5

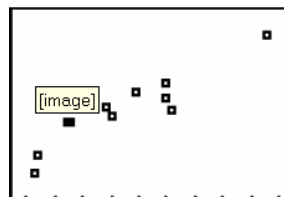


Figure 6

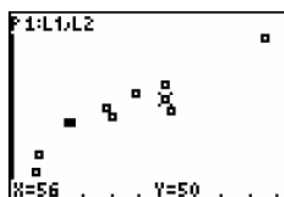


Figure 7

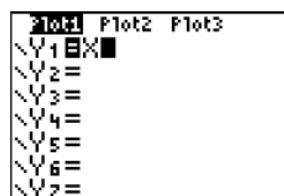


Figure 8

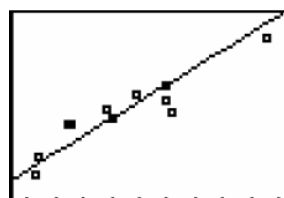


Figure 9

Famous Persons Birth Dates

	Names	Year	Month	Day	
1	Rooney, Andy	1919	1	14	
2	Reiner, Carl	1922	3	20	
3	Hefner, Hugh	1926	4	9	
4	Steinbrenner, George	1930	7	14	
5	Duvall, Robert	1931	1	5	
6	Reynolds, Debbie	1932	4	1	
7	MacClaine, Shirley	1934	4	24	
8	Alda, Alan	1936	1	28	
9	Smothers, Tom	1937	2	2	
10	Valli, Frankie	1937	5	3	
11	Hull, Bobby	1939	1	3	
12	Brokaw, Tom	1940	2	6	
13	Pacino, Al	1940	4	25	
14	Domingo, Placido	1941	1	21	
15	Cheney, Dick	1941	1	30	
16	Jackson, Jesse	1941	10	8	
17	Streisand, Barbara	1942	4	24	
18	Pesci, Joe	1943	2	9	
19	Selleck, Tmo	1945	1	29	
20	Parton, Dolly	1946	1	19	
21	Cher	1946	5	20	
22	Clinton, Bill	1946	8	19	
23	Bowie, David	1947	1	8	
24	Crystal, Billie	1947	3	14	
25	Letterman, David	1947	4	12	
26	Keillor, Garrison	1947	8	7	
27	Gore, Al	1948	3	31	
28	Murray, Bill	1950	9	21	
29	Limbaugh, Rush	1951	1	12	
30	Danza, Tony	1951	4	21	
31	Grammer, Kelsey	1953	2	21	
32	Allen, Tim	1953	6	13	
33	Belushi, Jim	1954	6	15	
34	Roker, Al	1954	8	20	
35	Gibson, Mel	1956	1	3	
36	Hanks, Tom	1956	7	9	
37	Cauric, Katie	1957	1	7	
38	Lee, Spike	1957	3	20	
39	Degeneres, Ellen	1958	1	26	
40	Grant, Hugh	1960	9	9	
41	Dreyfus, Julia Louise	1961	1	13	
42	Clooney, George	1961	5	6	
43	Broderick, Matthew	1962	3	21	
44	Cruise, Tom	1962	7	3	
45	O'Brien, Conan	1963	4	18	
46	Cage, Nicholas	1964	1	7	
47	Sheen, Charlie	1965	9	3	
48	Rock, Chris	1966	2	7	

49	Ferrell, Will	1967	7	16	
50	Cool J, L.L.	1968	1	14	
51	Manson, Marilyn	1969	1	5	
52	Aniston, Jennifer	1969	2	11	
53	Zellweger, Renne	1969	4	25	
54	Blanchett, Cate	1969	5	14	
55	Latifah, Queen	1970	3	18	
56	Carey, Mariah	1970	3	27	
57	Lee, Jason	1970	4	25	
58	O'Neal, Shaquille	1972	3	6	
59	Garner, Jennifer	1972	4	17	
60	Blaine, David	1973	4	4	
61	Daly, Carson	1973	6	22	
62	Barrymore, Drew	1975	2	22	
63	Longoria, Eva	1975	3	15	
64	Witherspoon, Reese	1976	3	22	
65	Kutcher, Ashton	1978	2	7	
66	Love Hewitt, Jennifer	1979	2	21	
67	Kwan, Michelle	1980	7	7	
68	Calkin, McCaulay	1980	8	26	
69	Keys, Alicia	1981	1	25	
70	Timberlake, Justin	1981	1	31	
71	Hilton, Paris	1981	2	17	
72	Groban, Josh	1981	2	27	
73	Kournikova, Anna	1981	6	7	
74	Federer, Roger	1981	8	8	
75	Underwood, Carrie	1983	3	10	
76	Lohan, Lindsay	1986	7	2	
77	Duff, Hilary	1987	9	28	
78	Fanning, Dakota	1994	2	23	